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Improving University Teaching and Learning

**LEARNING CONTRACTS FOR
CLINICAL PRACTICE: TO
PROMOTE DEEP LEARNING
STRATEGIES**

Patrick Abbott

Abstract

Observation of second year under-graduate students on four week clinical placements, reveals an inability of these students to integrate the different topics taught in first and second year into clinical practice. These students appear not to have a deep understanding of the subjects and how they relate to one another. By teaching the students the benefits of deep learning and using learning contracts as a teaching tool, the author hoped to consolidate their knowledge base, increase their confidence in clinical practice and provide a learning tool that they could utilise throughout their nursing career. On completion they were asked to evaluate learning contracts as an adjunct to learning.

Introduction

Since the advent of university education for nurses, there has been a transition from a task focus to a theoretical focus, the author believes this has led to a shortfall in adapting the theory to practice. Undergraduate nurses have been placed on wards with a Registered Nurse (RN) and "overseen" by a facilitator from the university, to gain practical experience. The RNs and facilitators have little or no experience or education in teaching and learning and are left much to their own devices, with few guidelines.

Nurses today need to not only perform their work well but also they need to have a deep understanding of what they are doing, they need to be critical thinkers and practise clinical reasoning while developing lifelong learning habits that will assist them in coping with an ever changing profession (Richardson, 1987 p201). Clifford (1999, p115) supports this when she states that students need to "move from being passive learners to becoming autonomous learners". The purpose of this discussion paper is to discuss deep learning strategies and one learning tool the author has used with success, learning contracts.

Students today come to university with a diversity of learning needs. Over the years a university education has become available to the wider community, incorporating wider learning needs and presenting greater challenges to teachers to meet these needs. Ghazi and Henshaw (1998 p45) in their paper support how to keep student nurses motivated when they talk of the "wide entry gate" for new students and that "students come onto the course with different levels of experience and ability". This is evidenced in the author's experience with nursing students.

Deep learning

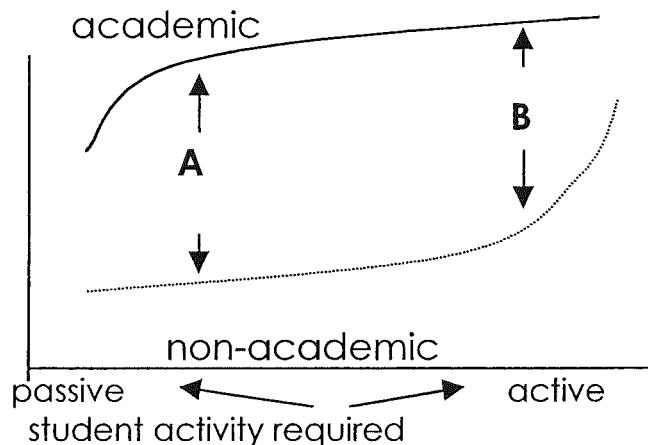
To be able to promote the use of deep learning strategies by students, both students and teachers need to have an understanding of surface and deep learning. Le Brun, (1997, p116) encapsulates the deep learning theory when she states, "Students who look for meaning and understanding learn more than students who adopt a surface approach". Students who adopt the surface learning approach tend to gather information and facts to obtain a pass, acquiring information without having the cognitive insight that the deep learner has.

Marton and Saljo (1976) introduced the concepts of surface and deep learning when they observed different approaches by students to study and to their preparation for a test. In analysing the results of the test, it was noted that some students had glossed over the text to obtain only the facts they thought they would need to pass (surface learners), while others studied their material and texts to gain insight and meaning (deep learners). Biggs illustrates the relationship between levels of engagement, from memorising to theorising, and the level of student activity required to support this as presented in figure 1.

Biggs (1999, p58) describes two diverse students, one academic and one non-academic and their separate approach to learning and what happens when deep learning strategies are implemented into the curriculum, in this case Problem Based Learning (PBL). Figure 1 shows that the higher the engagement by the student and activity required, the deeper the understanding of the topic. At the lower end of the engagement scale is the memorising and note-taking level of engagement depicting the surface learner then moving up the scale to relating, applying and theorising, showing the activities required to develop a deep understanding. With a deep learning strategy implemented the non-academic's level of engagement increases, moving from surface learning to deep learning. What this means is the more active a student is in their study the deeper their understanding. The teachers then face a challenge in promoting deep learning strategies in their teaching.

High Level of Engagement

theorising
applying
relating
explaining
describing
note-taking
memorising



Low Level of Engagement

Figure 1. Biggs (1999, p59)

Learning Contracts

A learning contract is a “negotiated agreement between a learner and a teacher, lecturer or staff adviser” (Anderson, *et al*, 1998, p2). Knowles (1986) postulated that adult learners should be encouraged to take a greater responsibility for their learning and utilise their existing skills and experience for new learning. The student can identify their own learning needs within the contract and can concentrate on what they need to know not what they already know within the requirements of the topic. The adviser then aligns these with “the formal assessment requirements of an educational institution or other accrediting body.” (Anderson *et al* 1998, p10). The author believes that learning contracts give students insight and clarity into their learning needs by defining their learning needs and the expectations of the learning institution, students can then plan their study in line with criteria to achieve a successful assessment.

Learning contracts were introduced by the author for 2nd year undergraduates to develop nurses’ independence and confidence in the clinical setting. The specific aims were to link theory to practice, promote deep learning, encourage self directed learning and provide a learning strategy for on going professional growth.

There are four main components to a learning contract; (1) the learning objectives, (2) learning strategies and learning resources, (3) what is to be assessed and (4) the criteria for assessment (See figure 2).

Student: Adviser: Date agreed:		Subject: Topic: Date due:	
Learning objective	Strategies and resources	What is to be assessed	Criteria for assessment
Signature of student:		Contact No.:	
Signature of adviser:		Contact No.:	

Figure 2. Example of leaning contract form, adapted from Anderson, *et al*. 1998

This teaching tool is structured in such a way that it clarifies the learner's needs, the teacher's needs, the goals of the course and the assessment requirements. Learning contracts takes the student step by step through the process of learning to achieve their goal. The advisers role in the process is very important, not only in teaching but as a support and negotiator (Anderson, *et al.* 1998 p3). Anderson and his colleagues go on to say that "the learning project requires a collaborative relationship based upon open communication and a degree of mutual respect."

Initially the student and adviser discuss the learning objectives that the student chooses, guided by the adviser who ensures that the objectives are in line with course requirements and the student's learning needs. Next they identify how the student is going to achieve his or her objectives and what resources and strategies he or she will use. Resources can include other teachers, existing literature, the Internet. Strategies for learning can often involve attempts to apply theoretical knowledge to real or formulated work settings. The third step identifies what the student needs to meet the objectives. This will give the student the insight as to the knowledge and/or competencies they need to achieve. Finally the criteria for assessment is clarified, that is, the standards that need to be achieved to obtain a certain grade level and what the student will be required to present for marking.

Learning contracts in nursing

Ghazi and Henshaw (1998) in their study of how to keep student Nurses motivated, incorporated learning contracts to promote undergraduate students' motivation. They reported on a number of aspects that hindered motivation one of which was the anxiety of not being able to do nursing. Their research involved four groups randomly selected from 240 students, forming two experimental groups using learning contracts and two using conventional methods.

The experimental group depicted higher attendance records, gave more positive feedback, were more engaged in the classroom, took greater advantage of learning opportunities and took greater responsibility for learning. These aspects relate to deep learning theory. Their study showed that the experimental group took greater control of their learning and were more motivated than were the students taught by conventional methods.

Kreider and Barry (1993) explored the use of learning contracts for new Clinical Nurses IIs and IIIs to orientate them to their advanced clinical roles as preceptors and assistants to clinicians. They found that:-

Contract learning was established as an effective teaching strategy by incorporating principles of adult education – self-direction, mutual negotiation and mutual evaluation to establish baseline competencies (p 167).

The contract was over a six-month period with ongoing feedback between the learner and the preceptor. Coaching was provided throughout the course to ensure the students stayed on track. The students' evaluations showed a consistent satisfaction with the process of "face to face interactions and collaboration" helping them recognise their potential to "achieve their winning goal of finalising their contracts" (p169).

Both of these studies indicate to the author that learning contracts promote deep learning in students by adapting the contract to the student's learning needs and by involving the students in a collaborative negotiation of the learning process. Also learning contracts promote student understanding of what is expected of them and in so doing increase student motivation. The two studies show that when students become more involved and engaged in their learning they develop a deeper understanding of the material to be learnt.

The Project

This project incorporated second year undergraduate nursing students on a four-week clinical placement. They were on three different wards covering various patient clinical conditions. Students are given a set number of objectives set by the university that they have to achieve during their four-week placement. As adult learners, they are expected to identify their learning needs and select their own objectives. Their contract was to choose one objective from those they set themselves in the first week. It was explained to them that they were not to be assessed on this objective, that it was to teach them a learning tool that would help them develop deep learning strategies and was to link theory to practice, encourage self directed learning and provide a learning strategy for professional growth.

At this juncture the students were introduced to the concept of deep and surface learning and the role of learning contracts to promote deep learning. They were asked a series of questions to help them understand the meaning of deep learning:-

Can you take a blood pressure?

They all answer "yes".

What are the two measurements of a blood pressure?

They all answer "systolic and diastolic".

What, physiologically, happens during these two measurements?

Their jaws drop and they fidget uncomfortably.

It is then explained to them that the first two questions constitute "surface" learning, where as the answer to the third question would show a "deep" understanding. This deep understanding is needed for today's professional nurse to be able to care for patients. They need to be able to interpret observations not as facts and figures but what is actually happening to the patient down at the cellular level. This explanation won most of them over to the concept of becoming more engaged in their learning.

The elements of a learning contract were then explained to them. It was also stressed to keep their topic simple and that they could use this contract to incorporate the objectives they chose in line with any assignment they may be doing or for the up coming exams. They were also given a set of guidelines on learning contracts for them to refer back to over the next four weeks and for future use.

The next step was to meet with students individually at the start of the second week to discuss their contracts. This was another important stage, not only to advise them on their contract but to assess their level of knowledge. One example of this stage involved a student who chose "To be able to take a pulse from children and infants, using the right techniques". This is a normal concern when students first do paediatric nursing. It was explained that to obtain a deep understanding of taking a pulse the student must not only look at how, but also why we take the pulse, what we are physically looking for and what is happening physiologically.

The next three weeks saw the students utilising the resources identified to complete their contract. The final day incorporated a debrief and each student gave a five minute presentation on the topic they chose to their peers. The topics were varied and some students had collaborated doing a part each so as to cover the topic more thoroughly. For example three students who worked on the burns ward divided the topic into pathophysiology, contractures and burns prevention. Observation by the author detected confidence, enthusiasm, a good understanding of the topic and they actually appeared to enjoy themselves. There was good feedback from their peers with stimulating questions and discussion.

Evaluation by students

The students were asked to evaluate the learning contract process at the end of the topic. Nine questions covered the introduction and explanation of the contracts, the contract process and the value they found in them. They were asked to use a Likert scale numbered 1 – 5, 1 being low and 5 being high.

The evaluation consisted of the following questions:

1. Was the concept of learning contracts explained to you in a way that you understood to be able to undertake one?
2. Was the proposal form relatively easy to fill out and follow?
3. Did you feel that you had input into your contract?
4. Did you feel that you were supported enough during the contract?
5. Did the learning contract help achieve a deeper understanding of your chosen objective?
6. Did the learning contract assist you with identifying resources?
7. Did the criteria for assessment give you clear goals for learning?

8. Would you want to use this method of learning in a formal setting?
9. Would you use this method of learning for self-directed learning?

Table 1. Results of student evaluation

	Low 1	2	Medium 3	4	High 5
Q1			1	3	6
Q2		1	1	3	5
Q3			2	1	7
Q4			2	4	4
Q5			2	2	6
Q6		1	2	2	5
Q7			4	2	4
Q8	1		1	3	5
Q9				4	6

The overall results were positive. The general consensus was that the learning contracts complemented the clinical teaching on the wards and that they obtained a deeper understanding of their topics. Positive comments were "helped develop our clinical reasoning skills" and "made us think critically".

Adviser's evaluation

The time frame was short and only a limited time was spent with students on individual contracts during the three weeks they had to prepare them. Some students noted they needed more support during this time.

The contracts were accepted as a good learning tool and most said that they would use them in a formal setting and in their own personal study. They all agreed that their learning had benefited by the exercise.

The hardest part of the project for the students appeared to be filling in the contract proposal. As previously, stated that the explanation of the elements of a contract is important at the beginning. Students need help in identifying objectives and criteria for assessing the outcomes. This difficulty was to be expected, as it was the first time the students had employed contracts. Increased use of learning contracts helps students to be more conscious of what they need to achieve to reach their goals of learning.

Summary

It was clear that these students, having taken control of their own learning, benefited from the use of learning contracts. They understood the concept of deep learning and employed it not only in their contracts but also in their general ward experience. The author's experience substantiates the two studies mentioned that when students are in control of their own learning and aware of their learning needs and how to achieve them, they are better able to develop a higher understanding of what they learn. As in the two studies these students became more involved and motivated in their learning.

This, the author believes, is the prerequisite for critical thinking and clinical reasoning which the modern day nurse needs for clinical practice.

Learning contracts are employed to make explicit the goals and requirements of learning from both the teacher's and students perspective. They can be used to promote deep learning strategies in students by identifying the level of learning required to achieve these goals.

Learning contracts are by no means the only deep learning strategy that can be employed by the educator but, used here, they proved to be a valuable teaching and learning aid. Learning contracts cannot ensure deep learning by themselves, but if the criteria for assessment requires understanding not regurgitation then this will certainly encourage students towards deep learning.

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